ABSTRACT

The invention is directed to a self-expanding stent for implantation into a body lumen, such as an artery. The stent consists of a plurality of radially expandable cylindrical elements generally aligned on a common longitudinal stent axis and interconnected by a plurality of interconnecting members placed on the stent in a collinear arrangement such as to create at least one continuous spine which extends along the length of the stent. The invention is also directed to a stent delivery system for implantation of a stent in a vessel which includes an outer tubular member having a restraining sheath and an inner tubular member having a distal end which has a compressed stent mounted thereto. The proximal end of the inner tubular member is connected to a housing assembly which prevents the inner tubular member from moving when the outer tubular member is retracted to deploy the stent. The proximal end of the outer tubular member is attached to a pull-back handle which is slidably mounted on the base of the housing assembly. When the pull-back handle is retracted, the restraining sheath is retracted to deploy the sheath, while the inner tubular member remains stationary.